

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least one slave rack to be combined with the master rack, wherein

the master rack accommodates:

a first optical wavelength multiplexer to multiplex a group of prescribed optical wavelength signals with each other and to output a first multiplexed signal; ~~and~~

a synthetic optical wavelength multiplexer to multiplex the first multiplexed signal and a second multiplexed signal and to output a synthetic multiplexed signal; and

an amplifier in which the synthetic multiplexed signal output from the synthetic optical wavelength multiplexer is multiplied, and

the slave rack accommodates:

a second optical wavelength multiplexer to multiplex a group of optical wavelength signals having a wavelength distribution that is different from that of the group of prescribed optical wavelength signals and to output as the second multiplexed signal,

wherein a number of the optical wavelength ~~signal~~ signals multiplexed, is divided in advance into a plurality of groups in order to be additionally installed with every slave rack.

2. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least one slave rack to be combined with the master rack, wherein

the master rack accommodates:

synthetic optical wavelength demultiplexer to input a synthetic multiplexed signal formed by multiplexing respective multiplexed signals of a group of different optical wavelength, which are grouped with different optical wavelength distributions and to demultiplex and output a first multiplexed signal and a second multiplexed signal; and

a first optical wavelength demultiplexer to demultiplex and output a group of optical wavelength signals from the first multiplexed signal demultiplexed by the synthetic optical wavelength demultiplexer, and

the slave rack accommodates;

a second optical wavelength demultiplexer to demultiplex and output another group of optical wavelength signals from the second multiplexed signal demultiplexed by the synthetic optical wavelength demultiplexer; and

an optical amplifier in which the second multiplexed signal output from the synthetic optical wavelength demultiplexer is multiplied,

wherein a number of the optical wavelength signals multiplexed is divided in advance into a plurality of groups in order to be additionally installed with every slave rack.

3. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus, comprising a master rack and at least one slave rack to be combined with and coupled to the master rack, wherein

the master rack accommodates:

a first optical wavelength multiplexer to multiplex a group of prescribed optical wavelength signals with each other and to output a first multiplexed signal;

a synthetic optical wavelength multiplexer to multiplex the first multiplexed signal and a second multiplexed signal and to output a first synthetic multiplexed signal;

an amplifier in which the first synthetic multiplexed signal output from the synthetic optical wavelength multiplexer is multiplied;

a synthetic optical wavelength demultiplexer to demultiplex and output a third multiplexed signal and a fourth multiplexed signal from ~~the~~ a second synthetic multiplexed signal transmitted from another optical wavelength division multiplexing and transmission apparatus through an optical transmission line; and

a first optical wavelength demultiplexer to demultiplex and output a group of optical wavelength signals from the third multiplexed signal output from the synthetic optical wavelength demultiplexer, and

the slave rack accommodates:

a second optical wavelength multiplexer to multiplex a group of optical wavelength signals having a wavelength distribution that is different from that of the group of prescribed optical wavelength signals to output as the second multiplexed signal, and

a second optical wavelength demultiplexer to demultiplex and output another group of optical wavelength signals from the fourth multiplexed signal demultiplexed by the synthetic optical wavelength demultiplexer,

wherein a number of the optical wavelength signals multiplexed is divided in advance into a plurality of groups in order to be additionally installed with every slave rack.

4. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising a plurality of noise cut filters

corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

5. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 3, further comprising a plurality of noise cut filters corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

6. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising a plurality of dispersion compensation fibers corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

7. (Original) An optical wavelength division multiplexing and transmission apparatus according to claim 3, further comprising a plurality of dispersion compensation fibers corresponding to the first multiplexed signal and the second multiplexed signal respectively on an input side of the synthetic optical wavelength multiplexer on which the first multiplexed signal and the second multiplexed signal are input.

8. (Currently Amended) An optical wavelength division multiplexing and transmission apparatus according to claim 1, further comprising an amplifier of the master rack for the first multiplexed signal, ~~an amplifier of the master rack for the synthetic multiplexed signal~~, a wavelength level monitoring device of the master rack for monitoring

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an output of the amplifier for the synthetic multiplexed signal, ~~an amplifier of the slave rack for the second multiplexed signal,~~ and a plurality of output control circuits for selectively controlling a plurality of levels of signals output from the amplifier for the first multiplexed signal, the amplifier for the second multiplexed signal and the amplifier for the synthetic multiplexed signal respectively in response to a detection output of the wavelength level monitoring device in which a plurality of levels of the optical wavelength signals of the first multiplexed signal, the second multiplexed signal and the synthetic multiplexed signal are monitored.